list includes 125 species, about equally divided between the two. A discussion of the distribution of the woody plants of the state at the close is interesting. Dr. Bessey thinks that this distribution shows that the woody plants have nearly all come up the Missouri bottoms and spread west and north-west. Those found only in the western part have undoubtedly come from the Rocky Mountains and have spread eastward to their present limits.

The nomenclature of the list shows a wide departure from that of the Manuals. Justifiable as many of these departures are, they seem out of place in such a publication as the present, because they certainly interfere with its usefulness for those not specialists.[1]

IF COLLECTORS are not properly informed as to how to collect plants it will not be for want of instructions. Two months ago we noticed Prof. Penhallow's booklet; now we have before us a pamphlet issued by the National Museum and prepared by Mr. F. H. Knowlton.[2] It contains directions for collecting all sorts of plants, as well as for caring for them after they are collected. In its preparation the author has drawn freely on Bailey's Collector's Handbook and the herbarium number of this journal (June, 1886, for which there was such a demand that the extra edition was soon exhausted). In many respects the present directions are better than their predecessors; it extends their range by giving directions for the collection of fossil plants. Certainly now if one puts together the instructions to be found in every text book and in almost every flora, those of Bailey, Penhallow and Knowlton, he will have all the knowledge that writing can give him of how to preserve plants. *Jam satis!*

OPEN LETTERS.

A section of botany in the American Association.

The thought of having a section for the botanists in the A. A. A. S. should be very inspiring to all who have at heart the thorough study of plant life in America. All admit that Section F is now crowded with members and papers, and doubtless many are deterred from taking part in the sessions from lack of opportunity. At the last

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[1] BESSEY, C. E.—Preliminary report on the native trees and shrubs of Nebraska. Bulletin 18 of the Ag. Exp. Sta. of Neb., vol. iv. art. iv. pp. 171-202.

[2] KNOWLTON, F. H.—Directions for collecting recent and fossil plants. Part B of Bulletin of U. S. Nat. Mus. no. 39. 8vo. pp. 46. figs. 10. Washington: Gov. Printing Office. 1891.

meeting numerous papers were passed without comment or discussion that the programme might be carried out.

The work of the section has naturally divided itself into two groups, namely, that pertaining to animal life, and to botany. In order to gain more time and draw together more closely those who are interested in particular branches, clubs have been formed. Thus the entomogical and botanical clubs have arisen and grown into features of the week of as much importance as the section and more perhaps to the younger members. These clubs should, and doubtless will be continued. In the section itself for years there has been an attempt on the part of the programme committee to group the subjects so that zoölogists and entomologists have had a half day assigned them, alternately with the botanists. This has virtually broken up the continuous attendance of members upon the sectional meetings and excursions or other events are indulged in by the party not upon the programme. Perhaps to our shame, this has been particularly true of the botanists who have sometimes left the zoölogists with a depleted but more homogeneous and attentive audience. Also within the past few years the plan of having time assigned for a series of connected papers upon one or more of the branches of science coming under the present scope of the section has still further differentiated the work. As Section F now stands its sessions are largely an alternation of groups of subjects with an audience that shifts with the programme.

A notice of an amendment to divide Section F is therefore well founded; the division is very natural and one that, in fact, has already been made, so far as arranging the programme by grouping the subjects and by the work of the clubs will permit it. In short, it has gone as far as it can save by a division of the section itself.

The contemplated division will bring many gains without corresponding losses. Time will then be offered for thorough sectional work upon the two large and growing fields of biological science, instead of the rapid reading of papers as at present, followed by little or no discussion before a half interested audience.

With a Section of Botany, for example, officers can be selected who will be interested in all subjects presented, a condition that does not always obtain under the present arrangement, to say nothing about the difficulty that may now arise as to the proper apportionment of the official plums among the aspirants for honors.

If we believe in the principle of division of labor and specialization, in short in the theory of evolution in its broad and best sense, we cannot but feel that the proposed step is in the direction of advance, and realize that the last few meetings of Section F indicate clearly that the time to take the step forward is at hand.

The best way to make the importance of a division still more emphatic is for every student of the biological sciences to come, if possible to the Rochester meeting with a large number of full papers, and strive to have as many as possible read and discussed in Section F, the balance of shorter ones to be considered as best they may at the clubs. As a section of Botany is asked for, let the botanists in particular show by their works, their faith in the reasonableness of the demand.— Byron D. Halsted, *Rutgers College.*